

Application Serial No. 09/869,082  
Amendment after final rejection dated June 22, 2005  
Reply to final Office action of February 22, 2005

#### REMARKS

Claims 20 through 26, 44, and 45 are pending in this application. Claims 20, 25, and 44 are amended herein. New claim 45 is added herein. Support for the amendments to the claims may be found in the claims as filed originally, as well as at page 29, lines 18 and 19 of the WO/00/38838 publication. This amendment is believed to place the application in condition for allowance, and entry is requested respectfully. Further reconsideration of this application in view of the foregoing amendment and the following remarks is also respectfully requested.

#### Response to Arguments:

Consideration of the Applicant's arguments is again appreciated. The final Office action asserts that examples 9 and 10 are not supported by the parent application 09/219,413. To the contrary, the claims of this application are supported by, inter alia, example 8, which appeared in Application Serial No. 09/219,443 as example 9, as well Figs. 16A, 16B, and 16D, and are thus entitled to at least the December 23, 1998 filing date of parent application 09/219,413.

The final Office action asserts further that Atwood discloses a known volume, and the recitation "known volume" encompasses a range of volumes. Claims 20, 25, and 44 have been amended to recite a predetermined volume of the cover slip. Even if the cover slip of Atwood could be interpreted as containing a known volume based on a measurement made beforehand, or if a known volume were equivalent to a range of volumes, as asserted in the final Office action, that can in no way amount to *predetermined* knowledge of the volume based on what stays underneath a coverslip afterward. Claims 20, 25, and 44, as well as the claims dependent thereon, are thus submitted to be allowable.

Finally, the final Office action asserts that the Applicant's arguments had contradicted themselves at page 4 of the amendment filed December 17, 2004. This is submitted to be incorrect. The undersigned representative of the Applicant was actually referring to the concave well of the claimed invention, and not cover 16 of the Atwood, U.S. 5,364,790 reference, when the characteristic of possessing a known volume was described, as discussed in the telephone conference of March 10, 2005.

#### Claim Rejections - 35 U.S.C. § 102:

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Claims 20, 22, 23, 25 and 44 were rejected under 35 U.S.C. § 102(b) as anticipated by Atwood et al., US 5,364,790. The rejection is traversed, to the extent it might apply to the claims as amended.

Claim 20 recites:

"said concave well having a predetermined volume."

Atwood neither teaches, discloses, nor suggests a concave well having a *predetermined* volume, as recited in claim 20. Cover 16 of Atwood has no predetermined volume. Cover 16, rather, has a range of volumes to accommodate the range of volumes of reagent that might be placed underneath. Furthermore, cover 16 will have a smaller volume when it is empty than it will have after reagent has been placed underneath. The volume of cover 16, therefore, is defined by whether reagent has been placed underneath it, as well as by the volume of reagent placed underneath it. This is to be contrasted with the claimed invention, in which the concave well *itself* has a predetermined volume.

In particular, cover 16 is a thin, generally compliant cover member 16 which is placed over sample 12, as described at column 6, lines 15 and 16, column 7, lines 38 and 39, and as shown in Fig. 1. Since cover 16 is a thin, generally compliant cover member 16, its volume will expand or contract to conform to the volume of sample 12, rather than having a predetermined volume as recited in claim 20.

Furthermore, cover 16 is preferably a circular disk of thin rubber sheet, as described at column 8, lines 37 and 38, like an automobile tire or a balloon. Thus, cover 16 will expand or contract to accommodate whatever volume of reagent is placed underneath; just like an automobile tire or a balloon expands to accommodate the volume of air that is pumped into it, rather than having a predetermined volume as recited in claim 20.

Furthermore, cover 16 itself is compliant so that it can expand to accommodate the fixed reagent volume without a large increase in pressure, as described at column 12, lines 24 through 26. Thus, cover 16 deforms to accommodate whatever volume of reagent happens to have been left underneath, rather than having a predetermined volume as recited in claim 20. Therefore, cover 16 cannot be relied on to ensure that any *particular* volume of reagent is retained underneath. Rather, the volume of reagent that ends up underneath cover 16 must be

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measured beforehand, if it is to be known with any degree of certainty. This is to be contrasted with the claimed invention, in which the concave well *itself* has a predetermined volume.

Thus, in the claimed invention, the volume of reagent that will be retained in the concave well need not be measured beforehand. Rather, only a volume of reagent substantially equal to the predetermined volume of the concave well will be retained in the concave well. Claim 20 is therefore submitted to be allowable. Withdrawal of the rejection of claim 20 is earnestly solicited.

Claims 22 and 23 depend from claim 20 and add further distinguishing elements. Claims 22 and 23 are thus also submitted to be allowable. Withdrawal of the rejection of claims 22 and 23 is also earnestly solicited.

Claim 25 recites:

"said concave well having a predetermined volume."

Atwood neither teaches, discloses, nor suggests a concave well having a predetermined volume, as discussed above with respect to claim 20. Claim 25 is also submitted to be allowable, for at least those reasons discussed above with respect to claim 20. Withdrawal of the rejection of claim 25 is earnestly solicited.

Claim 44 recites:

"a coverslip having a concave well of a predetermined volume."

Atwood neither teaches, discloses, nor suggests a concave well having a predetermined volume, as discussed above with respect to claim 20. Claim 44 is also submitted to be allowable, for at least those reasons discussed above with respect to claim 20. Withdrawal of the rejection of claim 44 is earnestly solicited.

#### Claim Rejections - 35 U.S.C. § 103:

Claims 21 and 26 have been rejected under 35 U.S.C. § 103 as being unpatentable over Atwood in view of the Pan et al. WO 97/07241. The rejection is traversed. Reconsideration is earnestly solicited.

Claim 21 depends from claim 20 and adds further distinguishing elements. Atwood neither teaches, discloses, nor suggests a concave well having a predetermined volume, as

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discussed above with respect to claim 20. Pan does not, either. Claim 21 is thus also submitted to be allowable. Withdrawal of the rejection of claim 21 is earnestly solicited.

Claim 26 depends from claim 25 and adds further distinguishing elements. Atwood neither teaches, discloses, nor suggests a concave well having a predetermined volume, as discussed above with respect to claim 20. Pan does not, either. Claim 26 is thus also submitted to be allowable. Withdrawal of the rejection of claim 26 is also earnestly solicited.

Claim 24 has been rejected under 35 U.S.C. § 103 as being unpatentable over Atwood in view of the Kuan et al. US 6,181,811. The rejection is traversed. Reconsideration is earnestly solicited.

Claim 24 depends from claim 20 and adds further distinguishing elements. Atwood neither teaches, discloses, nor suggests a concave well having a predetermined volume, as discussed above with respect to claim 20. Kuan does not, either. Claim 24 is thus also submitted to be allowable. Withdrawal of the rejection of claim 24 is earnestly solicited.

New claim 45:

Claim 45 depends from claim 20 and adds further distinguishing elements. Atwood neither teaches, discloses, nor suggests a concave well having a predetermined volume, as discussed above with respect to claim 20. Kuan does not, either. Claim 45 is thus also submitted to be allowable.

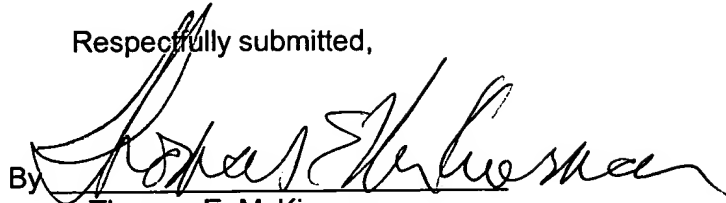
Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all claims 20 through 26, 44, and 45 are allowable over the cited references. Allowance of all claims 20 through 26, 44, and 45 and of this entire application are therefore respectfully requested.

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Respectfully submitted,

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